

2010 Report to the Legislature: Water Banking in Washington State

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For more information contact:

Water Resources Program P.O. Box 47600 Olympia, WA 98504-7600

Phone: (360) 407-6872

Washington State Department of Ecology - www.ecy.wa.gov/

0	Headquarters, Olympia	(360) 407-6000
0	Northwest Regional Office, Bellevue	(425) 649-7000
0	Southwest Regional Office, Olympia	(360) 407-6300
0	Central Regional Office, Yakima	(509) 575-2490
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2010 Report to the Legislature:

Water Banking in Washington State

by Peggy Clifford

Water Resources Program Washington State Department of Ecology Olympia, Washington 98504-7710

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Summary

Washington State has had specific statutory authority to perform water banking since July of 2003 through House Bill 1640. It authorized the Washington Department of Ecology (Ecology) to use the trust water rights program in the Yakima River basin for water banking purposes.

In 2009, the Legislature amended the trust water statute significantly. It now clearly authorizes Ecology to conduct water banking activities statewide. Other new provisions in the bill allow groundwater rights to be placed in trust, clarify conditions for placing water rights in or out of trust, and provide further protection of trust water rights. New legislation in 2009 also authorized a pilot banking effort in Walla Walla.

Despite the new legislation, Ecology recognizes that challenges remain in implementing water banking or making best use of water banking opportunities.

Obstacles to developing water banking in Washington State include:

- The difficulty of valuing land and water separately
- The challenges of separating water and land purchases
- The local economic effects of water transfers.
- Lack of support mechanisms necessary develop water markets

Introduction

"Water banking in its most generalized sense is an institutionalized process specifically designed to facilitate the transfer of developed water to new uses. Broadly speaking, a water bank is an intermediary. Like a broker, it seeks to bring together buyers and sellers. Unlike a broker, however, it is an institutionalized process with known procedures and with some kind of public sanction for its activities."

Washington State has had specific statutory authority to perform water banking since July of 2003 through House Bill 1640. It authorized the Washington Department of Ecology (Ecology) to use the Trust Water Rights Program in the Yakima River Basin for water banking purposes. During the 2009 legislative session, Chapter 90.42 RCW was amended significantly. It now clearly authorizes Ecology to conduct water banking activities statewide.

The law requires Ecology to report on water banking to appropriate legislative committees by December 31 of every even numbered year. This is the fourth such report.

RCW 90.42.130 states:

- (1) The department shall seek input from agricultural organizations, federal agencies, tribal governments, local governments, watershed groups, conservation groups, and developers on water banking, including water banking procedures and identification of areas in Washington state where water banking could assist in providing water supplies for instream and out-of-stream uses. The department shall summarize any comments received on water banking and submit a report, including any recommendations, to the appropriate committees of the legislature for their consideration in the subsequent legislative session.
- (2) By December 31st of every even-numbered year, the department shall submit a report to the appropriate committees of the legislature on water banking activities authorized under RCW 90.42.100. The report shall:
- (a) Evaluate the effectiveness of water banking in meeting the policies and objectives of this chapter;
- (b) Describe any statutory, regulatory, or other impediments to water banking in other areas of the state; and
- (c) Identify other basins or regions that may benefit from authorization for the department to use the trust water [rights] program for water banking purposes.

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¹ Lawrence J. MacDonnell, "Water Banks: Untangling the Gordian Knot of Western Water," 1995.

What is Water Banking?

The July 2004 Ecology report "Analysis of Water Banking in the Western United States" defines water banking broadly as:

"An institutional mechanism that facilitates the legal transfer and market exchange of various types of surface, groundwater, and storage entitlements."

The report further discusses the wide variety of activities related to water banking:

Water banks exist in almost all western states. There are significant differences in the way banks operate, particularly the degree of involvement surrounding sales, pricing, and price controls. Although the approaches may differ, the common goal is moving water to where it is needed most.

Water banks can be involved to differing degrees in the exchange of water. Water banks have assumed the role of broker, clearinghouse, and market-maker. Brokers connect or solicit buyers and sellers to create sales. A clearinghouse serves mainly as a repository for information on bids and offers. A market-maker attempts to ensure there are equal buyers to sellers in a market. Many water banks pool water supplies from willing sellers and make them available to willing buyers.

Water banks can also provide a host of administrative and technical functions, for example:

- Determining what rights can be banked.
- Establishing the quantity of bankable water.
- Limiting, if necessary, who can purchase or rent from the bank.
- Setting contract terms or prices.
- Facilitating regulatory requirements.

Under Chapter 90.42 RCW, Ecology is authorized to use water banking to:

- Mitigate for new water uses.
- Hold water for beneficial uses consistent with terms established by the transferor.
- Meet future water supply needs.
- Provide a source of water to third parties on a temporary or permanent basis, for any allowed beneficial use.

Water banking may also be a tool to document transfers of water rights to and from the trust water rights program.

Under Chapter 90.42 RCW, Ecology may not use water banking to:

- Cause detriment or injury to existing rights.
- Issue temporary rights for new potable uses, or
- Administer federal project water rights.

2009 Water Banking Legislation

Ecology worked closely with stakeholders to produce draft legislation for water banking in the 2009 legislative session. Engrossed Substitute Senate Bill 5583 was signed by the governor on April 29, and it took effect on July 26, 2009.

The bill clarifies that Ecology has the authority to use the State Trust Water Program (RCW 90.42) for water banking purposes statewide. Water banking is not defined. Crafters of the bill were careful to describe banking as a verb (activity), rather than a noun (institution) in order to allow flexibility in bank formation and governance.

Other new provisions in the bill are:

- Groundwater placed in trust may be donated or purchased.
- A water right is considered to be exercised while held in trust.
- Ecology is directed to exercise its authority, where appropriate, to protect trust water rights.
- Donations of any length and short-term leases (five years or less) that go into trust now
 have a public notice requirement. Instead of using a newspaper, Ecology may post the
 notice on the agency's website, and notify local governments by email.
- Where nonuse of a water right is excused from relinquishment under RCW 90.14.140 (1), the amount of water eligible to put into trust is the highest use in the most recent five-year period before use ended. Hydropower and municipal water supply water rights exempted from relinquishment may be put into trust to the limit of historical beneficial use. For these uses, the portion in trust plus the portion continuing to be used cannot exceed historical beneficial use.
- Ecology may recover costs for water service contracts with federal agencies from the individuals receiving water.
- Carryover of water from one water year to another in water service contracts is allowed in the Yakima River basin if it will not negatively impact the total water supply available (TWSA). Return flows in the Yakima River basin must also remain available for TWSA and other uses. We have used the carryover provision in the Yakima River basin in the 2009-10 water year, and are likely to use it again in 2010-11.
- The first time the trust program is used for water banking in each WRIA, Ecology is required to provide electronic notice (email) and an opportunity for comment. The notice goes to affected local governments and affected federally-recognized tribes. Local governments are defined as a "city, town, public utility district, irrigation district, public port, county, sewer district, or water district."
- The consumptive quantity of a water right when removed from trust is equal to the consumptive quantity prior to going into trust.

Water Banking in Washington State

Watershed Groups

Many regions of the state have expressed considerable interest in using water banking. A large number of local watershed planning groups (planning under Chapter 90.82 RCW) are examining the potential of water banking as one of many options to address water supply issues. Several planning groups have included water acquisition and water banking as options in their watershed planning documents:

- The Wenatchee Watershed Management Plan (WRIA 45), in particular, contains detailed recommendations for water banking in their watershed. ² The plan identified several subbasins in the arid lower portion of the watershed where water banking might help provide reliable water supplies to meet future domestic and municipal needs.
- Water banking is an element in the approved watershed plan for WRIA 30 (Klickitat). This element has strong support from the watershed committee.
- The Bertrand sub-basin of the Nooksack watershed (WRIA 1) is working on a cooperative, locally managed water management program to achieve instream flow targets. It will be implemented using contracts between water users and the Bertrand Watershed Improvement District. The program will function like a bank through provisions that provide incentives for existing water rights holders to take part.
- A Dungeness watershed group (Elwha Dungeness WRIA 18) is working on infrastructure for a water bank as a mechanism to address mitigation needs. Two reports on water banking have been completed: a feasibility study, and a strategy. The bank will provide a framework for mitigation which has been under discussion as part of a future Dungeness water management and instream flow rule.
- The Lower Columbia Fish Recovery Board (lead agency of the watershed planning groups for WRIAs 25, 26, 27, and 28) is interested in creating a water banking system for the lower Columbia area. Water banking could be used for smaller quantity water projects in order to comply with mitigation requirements.
- The Rock/Glade watershed plan (WRIA 31) was approved with recommendations for water banking. There is significant interest in banking both surface and ground water. The WRIA includes the Columbia River and portions of Benton, Klickitat and Yakima counties.

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http://www.co.chelan.wa.us/nr/nr wen watershed.htm

Water Banking interest by WRIA

Areas of the state that have expressed an interest in water banking, have begun creating the infrastructure for water banking, or have specifically mentioned water banking in their plans are listed below by Water Resource Inventory Area (WRIA):

WRIA 1 (Nooksack)	WRIA 34 (Palouse)
WRIA 11 (Nisqually)	WRIA 35 (Middle Snake)
• WRIA 13 (Deschutes)	WRIA 37 (Lower Yakima)
WRIA 17 (Quilcene/Snow)	• WRIA 38 (Naches)
WRIA 18 (Elwha/Dungeness)	WRIA 39 (Upper Yakima)
• WRIA 22/23 (Chehalis)	WRIA 45 (Wenatchee)
WRIAs 25/26 (Grays-Elochoman/Cowlitz)	WRIA 32 (Walla Walla)
WRIAs 27/28 (Lewis/Salmon-Washougal)	WRIA 46 (Entiat)
WRIA 30 (Klickitat)	WRIA 48 (Methow)
WRIA 31 (Rock/Glade)	WRIA 59 (Colville)

The Yakima River Basin

Because water banking was first authorized as a pilot in the Yakima River Basin, the banking efforts in the Yakima area are most fully developed. Water banks are currently operating in the Upper and Lower Kittitas County areas. Both banks are designed to distribute mitigation credits to residential water users based on water rights held in the Trust Water Rights Program to offset the impact on the Yakima River system. The Upper Kittitas Exchange, in less than a year of operation, has issued mitigation credits for more than 90 residences through rights offered by Suncadia. Northland Resources has received permits based on placement of water rights into the Trust Water Rights Program that are sufficient to serve more than 1,200 residences. The Lower Kittitas Exchange, initiated by SC Aggregate, expects to complete its first transaction in early 2011.

The mitigation banking model is also being used to develop two exchanges in the Swauk Creek Basin, one for Swauk Creek, and another for First Creek, a tributary to Swauk Creek. A mitigation exchange is also in development for the Manastash Creek basin. All three of these banking efforts are expected to be operational in the 2011 water year. These mitigation banks serve streams tributary to the Yakima River, and will allow transactions to occur in key areas where the mitigation rights offered by Suncadia and SC Aggregate cannot effectively offset impacts.

There have been several beneficiaries to the carry-over provision from the 2009 legislative amendments in the Yakima River Basin. They include participants in the upper Kittitas Water Exchange and the City of Roslyn. The four water rights that they intend to convey to the trust water program to mitigate for out-of-priority use when the U.S. Bureau of Reclamation (USBR)

imposes pro-rationing are partially assigned to the USBR contract. This assignment provides water for USBR to hold in the Yakima Basin reservoirs equal to the impact of their diversions on the Yakima Project operations. Other water users likely to benefit from this new authority include post-1905 Yakima basin domestic water users above Easton and in the Cle Elum basin, who are subject to curtailment when USBR pro-rations water among the May 10, 1905 rights.

The Columbia River Water Management Program

On February 14, 2006, the Washington State Legislature passed House Bill 2860 (Chapter 90.90 RCW) creating a new Columbia River Basin Water Management Program. The bill directed Ecology to aggressively pursue development of water supplies to benefit both instream and out-of-stream uses through storage, conservation, and voluntary regional water management agreements. The bill also required that Ecology complete a two-part report on:

- The Columbia River's water supply.
- A forecast of future water supply and demand requirements.

On November 16, 2006, Ecology released the first report, which we have updated annually. Written in two sections, the report includes a water-supply inventory and a long-term water supply and demand forecast. It also identifies conservation and storage projects that the state might use to meet future water needs.

The reports specifically mention water banking as a potential tool for managing water:

"Water marketing, the purchase of existing water rights for allocation to new uses, along with water banking have been proposed as an approach to water management in the Columbia River Basin. Water marketing and water banking could reallocate existing water rights to new uses...

The legislation did not authorize water banking in the Columbia River Basin, but did not preclude Ecology from pursuing marketing options in the future. Ecology has established a pilot water bank project in the Yakima River Basin and that approach could be expanded in the future."³

The report also mentions the development of proposals for full and partial season water banking as a tool for solving problems and assisting conservation efforts for water users in the Columbia Basin counties of Grant, Adams, and Franklin.⁴

The Columbia River Water Management Program recommends water banking activities including acquiring water through purchase and conservation to meet needs both in stream and out-of-stream, and use of potential new storage facilities to hold water for future use.

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³ Draft Programmatic Environmental Impact Statement for the Columbia River Water Management Program, Sec. 2.4.3, Water Marketing/Water Banking, p. 2-22 http://www.ecy.wa.gov/programs/wr/cwp/draft_eis.html

⁴ Ibid, Sec. 2.1.2.2, Conservation Component p. 2-10

The 2006 legislation authorizes Ecology to use money from the \$200 million Columbia River Account to acquire water rights. It also directs Ecology to inventory conservation projects, and identifies funding to implement the best projects. Ecology is to place net water saving from such projects in trust in proportion to state funding of the project. The legislation set up mechanisms to then assign this conserved water to other water uses and users through new permits.

Lake Roosevelt

The Columbia River Program includes the Lake Roosevelt Incremental Storage Releases Project⁶. This project will provide water for drought relief, municipal and industrial supply, replacement of ground water use in the Odessa Subarea, and enhanced stream flows for fish. The storage releases will come from USBR's existing 6.4 million acre-foot storage behind Grand Coulee Dam.

Releases will occur from April to August and lake levels will return to normal by the end of September. The storage releases will result in one foot of additional drawdown of the lake level during spring and summer months, and 1.8 feet during drought years. This added drawdown is small compared to the normal operating range of Lake Roosevelt, which fluctuates up to 80 feet a year and up to 2.5 feet a day.

In June 2009, USBR released a Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Lake Roosevelt Incremental Storage Releases Project. The EA analyzes the withdrawal of additional water from Lake Roosevelt to provide drought relief, improve municipal and industrial supply, provide a replacement for some of the groundwater use in the Odessa Subarea, and improve instream flows in the Columbia River below Grand Coulee Dam.

In 2009, the Bureau released 13,527 acre-feet of water under a one-year contract with Ecology. The release is the first step in permitting the water for municipal and industrial use. The released water will also provide benefit to fish from the dam to the point of diversion.

The Walla Walla River Basin

The unique pilot effort to manage water locally, based on 2009 legislation, is now solidly established in the Walla Walla Valley. The Walla Walla Watershed Management Partnership (Partnership) water bank is in operation and accruing benefits for farms and fish. This program is a result of a watershed planning effort that began in 2000, involving local water users, conservation groups, citizens, Tribes, and governments. They worked collaboratively with the state and federal agencies to identify where stream flows were inadequate for all water right holders and federally-listed endangered fish species. A total of 33 water banking agreements are now in place between local water users and the Partnership. Groundwater and surface water

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⁵ See RCW 90.90.010(4).

⁶ For additional information about the Lake Roosevelt Incremental Storage Releases, please visit our webpage dedicated to this project at http://www.ecy.wa.gov/programs/wr/cwp/cr_lkroos.html

rights in the Partnership's one-of-a-kind water bank total over 2,551 acre-feet annually and, depending on the time of year, up to 8.2 cubic feet per second basin wide.

The Partnership's water banking program is being implemented in phases. The initial focus in 2010 was to enroll water right holders interested in banking all or a portion of their water right in exchange for relief from the "use it or lose it" relinquishment provisions in the state water code.

Choosing to take part in the Partnership's water bank is designed to be a simple process for water users. The process starts with a water right holder supplying water right information and is followed by a non-use agreement that is crafted to place the water right in the Partnership's water bank. Once the agreement is approved by the water right holder and the Partnership, the Partnership maintains the banked water, and the water right holder is not subject to relinquishment for non-use of the banked water. When the water banking agreement term ends, water rights return to the same status they held prior to participating; the agreement period is simply a "tolling of the clock." Participation does not permanently change a water right.

Enhanced flows from banked water provide benefits to endangered fish species that rely on local streams and rivers for passage and instream habitat. To date, water rights from the Walla Walla River, Touchet River, and Mill Creek, as well as groundwater rights from various locations, have been placed in the water bank. Because these water banking agreements do not include an "extent and validity" review, banked water is not available for reallocation out-of-stream but instead is held by the Partnership for instream flow enhancement.

Further phases of the water banking program were developed in late 2010 for future implementation. This includes the Partnership assuming the management of the local mitigation bank program for new domestic permit-exempt wells, and the purchase and lease of water rights for instream flow enhancement. A fully functional water bank, with reallocation of water to out-of-stream uses, will be a future phase of program expansion.

Water banking in the Walla Walla differs from banking in the rest of the state because it is authorized under a different statute. We believe that where provisions of the statewide water banking law and the new Walla Walla law (SB 5800) overlap, the Walla Walla provisions will prevail. Ecology assists the Walla Walla banking effort by managing banked water and monitoring implementation.

Walla Walla Mitigation Bank

In 2007, an instream flow rule was adopted for the Walla Walla Basin (WRIA 32). It requires mitigation for new outdoor uses from permit-exempt wells drilled in the shallow aquifer in some high density areas of Walla Walla County.

The Washington Water Trust (WWT), Ecology, and Walla Walla County worked to develop a mitigation plan revolving around the purchase of water, to be transferred to the State Trust Water Program and held in a water exchange. Homebuilders are able to pay a set fee to the Water Exchange (cost of their portion of water acquired to mitigate) to allow them to use well water for outdoor uses such as gardening, watering and swimming pools. The program became fully

functional at the same time that the economy slowed, so the program has not been used as much as expected. However, it is ready to support new residential activities when demand increases.

To help start the Walla Walla Water Exchange, the WWT acquired two ground water rights, and a third purchase is pending. So far, two mitigation certificates have been purchased. Although the WWT initially set up and administered the Exchange, Ecology and the Walla Walla Watershed Management Partnership have an agreement for the Walla Walla Water Management Partnership to assume operation of the Exchange.

Obstacles to Implementing Water Banking

Many areas of the state are interested in using water banking to address new water supply needs or to protect instream flows. It will take some time to develop markets and create water banks, and there will be challenges, including those related to stakeholder concerns about water banking. Still, there are clearly potential benefits from being able to efficiently trade water, especially in times of shortage.

Despite the new legislation, obstacles remain to implementing water banking and making the best use of water banking opportunities. Legal challenges could require rule or statute amendments. The following obstacles are further described below:

- The difficulty of valuing land and water separately
- The challenges of separating water and land purchases
- The local economic effects of water transfers.
- Lack of support mechanisms necessary develop water markets

Difficulty of Valuing Land and Water Separately

In the Yakima River basin, USBR manages a large portion of the available water. USBR leases and purchases both water and land for environmental mitigation. Ecology partners with USBR on water leases and purchases in the basin, and sponsors much of the trading activity. Both agencies are important participants in creating an active water market.

Federal acquisition regulations that place strict limits on obtaining separate valuations of land and water are an impediment to USBR's involvement in water trading in the basin. The federal restrictions fail to recognize that separating the sale of the land and the appurtenant water can yield a combined value that exceeds the appraised value of the land and water right together. Federal regulations do not allow the sum of the parts to exceed the value of the whole, and thus tend to undervalue water. Federal land appraisers are using the federal acquisition regulations to conduct water valuations, whereas expert water valuation specialists in the private sector are using less restrictive valuation methods to more accurately determine the value of water. This has put the USBR at a competitive disadvantage in the Yakima River basin market.

Federal regulations regarding land and water acquisition would need to be amended to alleviate this problem, perhaps by exempting water right purchases from certain land appraisal restrictions. USBR is working in coordination with the Yakima Basin Water Enhancement Program's Conservation Advisory Group to try to get the federal regulations corrected.

Challenges of Separating Water from Land Purchases

It would be helpful, in some cases, for Ecology to have the ability to purchase land and water together as a package. This is particularly true where the land would serve important public needs, such as providing habitat benefits for critical salmon stocks. This is also true in cases where the sale of a critical water right is dependent on purchase of both land and water.

Many landowners are uncomfortable separating their water right from their land. In the current market, separation of the two can be an advantage or disadvantage depending on the local economy. Landowners are concerned about the effect the loss of the water right could have on the value and future use of the land.

It is also more difficult to determine market value of water separated from the land it is attached to. For this reason, the ability to purchase the land and water together provides an advantage to the purchaser.

While USBR may purchase land and water together, the Legislature has previously limited Ecology to purchases of water. This is one of the reasons the two agencies have partnered on some acquisitions. In some instances, especially when timing is a factor, it would be helpful for Ecology to be able to purchase land and water together without needing to partner with another agency. If the option were available for Ecology to purchase land and water together, Ecology would transfer any purchased land to a land trust organization to manage. Ecology has previously partnered with other agencies by buying the water portion of a land purchase.

Mitigating Local Economic Effects of Water Transfers

In response to concerns about the economic effects of out-of-basin water right transfers, Washington's Legislature appropriated funds for a study. Ecology contracted with Lawrence J MacDonnell to assess the current situation, research how other states have addressed the issue, and develop recommendations. The resulting report to the Legislature, "Protecting Local Economies," published in November 2008, discusses legislative options to protect rural communities in Northeast Washington from disproportionate economic, agricultural, and environmental impacts when upstream water rights are purchased and transferred to a downstream watershed or county.

The report concluded that water right transfers can benefit the state's economy while preserving the environment, but that much can be done to reduce their potential adverse effects on local communities. One way to maintain local control over regional water rights is to form rotational pools of water rights that structure water transfers to reduce their potential adverse effects on local communities. The report gave examples of two groups in other states that have organized to collectively manage their water rights. What these groups are doing is a form of water banking:

⁷ Can be viewed at: http://www.ecy.wa.gov/programs/wr/wrac/images/pdf/wa_local_econ_web.pdf .

- The Metropolitan Water District of Southern California has entered into an agreement with the Palo Verde Irrigation District for a long-term water supply based on temporarily fallowing no more than 20 percent of the lands within the district at any time. To implement the agreement, lands are only temporarily taken out of irrigation on a rotating basis. The payments made to the irrigators to forego irrigation are largely used in the local economy.
- In the lower Arkansas Valley of Colorado, shareholders in the many mutual ditch companies in the area are working to pool their rights and, using rotation fallowing, create a supply of water that would be available for use elsewhere in the basin. Compensation is given to those temporarily foregoing use, and part of the funds go to improving irrigation facilities, including on-field practices. A water conservancy district, a form of local agency with general taxing and bonding authority, is orchestrating the effort, and a term has been coined for the program "Super ditch."

The report stated that such proactive efforts are essential if local areas are to continue to derive benefits from the water once transferred outside the area.

"Water uses will inevitably change over time as new demands emerge and existing users decide to stop making their uses. Some of these uses will be within the same local area, but some will not. It is important for the state's economy that water be available to support emerging beneficial needs, wherever they exist. Ultimately, if local areas want to retain the benefits of the water presently used they will have to develop ways to make some of this water available to others in return for revenues that can be reinvested in the local area."

Washington should investigate use of agricultural rotational pools as a banking tool to protect local economies. State, federal, and local governments; water trust organizations; agricultural groups; and other stakeholders should work together to encourage water right holders to form groups that can respond in a coordinated way to requests for water.

Support Mechanisms Necessary for Water Markets

One of the key issues inhibiting formation of water banking is the need to create exchanges that support marketing and brokerage functions. Water transactions are often hard to predict and more expensive than expected. How the risks are distributed between the public and private sectors is critical to persons considering investing in supply for the water bank to function. Support mechanisms such as technical assistance and brokerage, as well as activities like purchasing, managing, and monitoring contribute to building the supportive infrastructure.

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⁸ "Protecting Local Economies," MacDonnell, p 21.

Conclusion

The ability to use the Trust Water Rights Program to create and protect trust water rights for instream flow purposes provides the key mechanism to incrementally increase stream flows for fish, wildlife, and other in-stream values. The 2009 water banking legislation amended the trust water statute to broaden the scope of the program, and will encourage the use of water banking as a tool to manage water in many areas of the state.

We now have most of the tools needed to facilitate water banking in Washington. However a robust water market needs a predictable and well established infrastructure to fully develop. At this point, the program needs support mechanisms to build the infrastructure to encourage market creation. Infrastructure includes, among other items, technical assistance, brokerage, and activities such as purchasing, managing, and monitoring.